

# Dead Men Talking

By David Kohn

It seems like an unlikely place to crack a case. But underneath Neyland Stadium on the campus of the University of Tennessee is where you can find the offices of Bill Bass: distinguished professor, Ph.D and forensic anthropologist. He's the man who wrote the textbook on how to identify someone after death, correspondent **Jim Stewart** reports.

"Every case is different," says Bass. "It's true. You have a body. You're trying to figure out who that is. But they're all different, and it's a challenge, to see whether you can solve the puzzle."

More than once, police have provided him with only a fragment of a skeleton, and Bass has deciphered for them, not just the dead person's age, race and gender, but sometimes even how and when they died. He is more a cop than a doctor.

Inside his quarters are the most unusual case files ever kept. Cardboard coffins are filled with human skeletons, each representing precisely what happens to our bodies after different kinds of death, from gunshots, to falling to simple old age. That's critical to police because sometimes all they have to work with are bones. For many prosecutors, the Bill Bass Bone Collection can become the last best chance to solve a murder mystery.

"There's an old saying that dead men tell no tales," says prosecutor William Goodwin. "I think Dr. Bass proves that that's not so true. Dead men do tell tales. If you're trained to listen properly. That's what he does and he's very good at it."

Take one of his latest cases: 33-year-old Madison Rutherford, a Connecticut businessman, who disappeared during a vacation in Mexico after he went for a drive. Attorney James Reardon handled the case.

Mexican authorities said that the car had gone off the side of the road and had burned in flames. And that the individual had perished in the fire.

It looked like a simple accident. But when the supposed victim had two life insurance policies worth \$7 million - as Rutherford did - nothing is simple. Understandably, the insurance companies wanted reliable proof that the victim was actually Rutherford before paying his wife any money. But practically all they had left was a burned-out Chevy Suburban, a necklace with Rutherford's name engraved on it....and some charred bones and teeth.

"They compared it to a body being burned in a furnace. There wasn't much left," says Reardon.

The insurance company hired Bass, who went to Mexico to take a look.

"When you first start off, you want to look at that crime scene and say, 'What does this scene tell me?'" says Bass. "And when I looked at that Chevrolet suburban, immediately it was an arson case. You just know, 'Hey. This is not an accident.'"

Says Bass: "In the Chevrolet Suburban, the right rear panel of that Chevrolet Suburban was caved in, in the back. Now, the fire wasn't from the engine. And you can tell that immediately. This is not

your average car fire. Somebody runs out of the road and the car catches on fire."

It may sound logical, but there aren't many people who can do what Bass does. In fact, there are fewer than 60 certified forensic anthropologists in the country today, and nearly half of them learned their techniques from the man himself, which is essentially to go at a crime scene the way a paleontologist would sift for dinosaur fossils.

"We are going to excavate that car," says Bass. "We're going to apply to a modern forensic situation, archeological techniques. Because remember, you get little pieces of skull about that size. And you got teeth, and that sort of stuff."

So Bass took those sifted remains and laid them out for a closer look: "The first thing that attracts you are the vertebrae and one of the things that happens as you get older is the skeleton wears out."

Bones are the primary indication of age. Bass quickly realized he was looking at a set of very arthritic bones, too old for a man in his 30s, like Madison Rutherford.

Bass could also tell that the body was not that of a white person. "When you and I bite down, we bite an overbite with the upper teeth back in front of the lower," Bass told Stewart. "American Indians have an edge-to-edge bite in the incisor region. And so you get occlusal wear. You know it's got to be an American Indian. Now, he could be a Mexican peasant."

Bass knew it's not the man the insurance company had been told it was - somebody put him in there.

It was just another routine case for Bass, and all the proof the insurance companies wanted. They denied the claim and passed the findings along to the FBI. It's that kind of success that's attracted prosecutors from all across the country. But what most of them don't learn until later is exactly how Bass developed his skills. Goodwin still remembers the first time he heard of Bass's secret to success, some experiments at a place he calls the Body Farm.

"He told me that he took human bodies and placed them under cars, out in the open, in houses, buried them," Goodwin says. "I wondered if I wasn't off in La La land. You know, what kind of guy would be doing this?"

Where would he be doing it? Here lies the answer. Behind these fences, on a lush hillside overlooking the Tennessee River is Bill Bass' very own 3-acre laboratory. The experiments he conducts here are simplicity itself: expose a corpse to the elements, then watch what happens. He has between 20 and 40 bodies there now, about the average, he says.

Many come from his home state of Tennessee. They are either donated to science or unclaimed from the county morgue. So far, nearly 400 of them have been down on the Farm. The idea came to Bass 30 years ago, after the police started asking him for help.

"Now the police usually don't ask you, 'Who is that?' They want to know, 'How long have they been there?' I thought, you know, if I'm going to be asked to determine how long this individual's been there, I need to begin to do some research on this."

Over the years, The Farm has taught Bass how a body becomes a skeleton and everything that



happens in between, from the insects drawn to it, to how long it takes for hair and skin to slip off in different weather.

Once the research projects are complete, the remains become part of the bone collection, filed away for further study. The research helps him solve crimes - particularly on the length of time since death.

The answer to when someone died can ultimately solve a murder. It was just such a puzzle that recently led him to Mississippi and the death penalty trial of Alan Michael Rubenstein, who was charged with a triple homicide. Both sides argued over the time of death of the badly decomposed bodies found inside a remote cabin.

"Time of death, when these people died, is what this case was going to hinge on," says the prosecutor in the case, Bill Goodwin.

Rubenstein had an alibi for when he claimed the victims died. But Bass reviewed the photos and videotapes of the crime scene, paying particular attention to the life cycles of the maggots on the bodies.

By looking at photographs, Bass could see that the maggots were further along in their life cycle, and had been in the body for at least 14 days. He concluded the three victims were killed much earlier than Rubenstein's attorney tried to prove, by about three weeks. That allowed the prosecutor to prove that Rubenstein was in Summit, Miss., on that date, at the cabin.

But while no one knows the science better, Bass could not conclusively prove the precise moment of death. At the trial, he could only narrow it down to within a 10-day period. That seemed to shoot down the defendant's alibi. The jury thought so, too, and found Rubenstein guilty. He was sentenced to death.

Says Goodwin: "I'll be very honest with you. And tell you, that without Dr. Bass, without his testimony, I do not believe I would have gotten a conviction."

Does Bass ever worry about being wrong? "Every time, I worry about that. In the case in Mexico, when you're making a statement, 'Hey, this is who's in that car,' and the insurance company says, 'I'm not gonna pay this insurance bill because our insured was not in the car,' yeah, it brings it home to you."

Which begs the question: if Madison Rutherford wasn't in that Chevy Suburban, then where was he? After an almost two-year hunt, he was found driving in Boston. He was working for an Internet company.

"We don't have all the details," says Reardon. "Our understanding is he drove from the hotel that he was staying in Monterrey to the side of the road in Mexico. He took gasoline with him. He doused the vehicle in gasoline. And he rode away in a bicycle."

Rutherford eventually pled guilty to fraud and was sentenced to five years in prison. But who burned in that car fire and how he died still intrigues Dr. Bass, a man who at the age of 73 still sees the end of life, as just the start of another mystery.

"I never see a forensic case as death," says Bass. "You can go out there and that individual's dead, in a bad state of repair. But to me, that is a scientific challenge to see if I can figure out who that

individual was and what happened to him. And I never see that as death."

Copyright 2009 CBS. All rights reserved.

individual was and what happened to him. And I never see that as death."

Copyright 2009 CBS. All rights reserved.